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ABSTRACT

This two-year project used students at the junior and senior high school level as tutors to elementary students in the basic skills of math and reading. Tutor selection was based on continuing interest, attendance, scholastic achievement, and overall attitude toward the program. The final evaluative report includes the following information: (1) training methods and procedures instituted in the program; (2) findings based on the data collected from the project, including questionnaire responses from teachers and tutors; interview and observation of tutees, tutors and teachers; and test results as reported by the school system; (3) conclusions and specific recommendations for future programs. Thirty-six tables cover detailed results of the project as evaluated by tutors, tutees, and teachers. The final observation and recommendation is that the program represents a valuable new trend in the teaching-learning process and that the talents of high school and junior high school students were successfully channelled to minister to the needs of under-achieving elementary grade students. (JD)

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Public Schools of the District of Columbia

Division of Planning, Research & Evaluation

Junior-Senior High Tutor-Aide Program at Malcolm X Elementary School

An Evaluation Study

Final Report

July 30, 1976

SP010 659

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An Evaluation Study

Final Report

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Chapter I

INTRODUCTION

The Junior-Senior Tutor/Aide Program at Malcolm X Elementary School continued during its second year of operation to remedy the need for individualized instruction in an open-space school by the assistance of teen-age, junior and senior high volunteers, who had been trained during the previous summer in staff training sessions; and more specifically, the project continued the development, construction and utilization of learning stations in the school through the cooperative efforts of teacher staff, tutors and pupils in order to strengthen the instructional program at Malcolm X through the facility of a further developed regimen of individualized tutor/pupil instruction. Furthermore, new program objectives for the 1975-76 school year included the extension of this program into a public elementary school and Assumption, a non-public school. The purpose was to increase the validation of the successful findings from the initial year of the program; the strengthening of the communication bank that had been established among participating schools during the initial year of operation; and a greater emphasis of the needs of the sixth grade school population.

However, according to the project director, the Highlands Elementary School selected for this purpose could not participate in the program because of the smaller than expected budget provided for this year's operations. The Assumption School did, however, receive the services of two tutor/aides from Ballou Senior High School. Since there was a relatively small sample of students from Assumption who participated in the program, no statistical test data from Assumption is included in this report.

Based upon careful observation of tutors at work with their tutees during the first year program, the role of the student tutor was perceived as having the following advantages over adult or parental aides: tutors were able to relate to tutees more directly through an understanding of "generational," peer language; tutees felt less threatened by tutors and were therefore more willing to reveal and discuss their problems; tutors were not already locked into a set of limiting concepts about what good teaching should involve; tutor creativity exposed tutees to new experiences and interests, and introduced them to new materials and resources in an encouraging and uninhibiting environment; and tutor enthusiasm was genuinely unpressured and well-motivated.

Tutor/Aides who had performed satisfactorally in the initial year of the program and who were still interested in and available for continued participation, as well as new replacements recruited during the summer prior to the second year of the program, instructed fourth to sixth grade elementary students in learning centers for a maximum period of two hours daily, five days per week. Tutors worked with from 1 to 4 students as determined by interest, capabilities and project objectives.

OBJECTIVES

The fiscal year 1975-76 had four main objectives. They were:

1.) At the end of the school year, 75% of the tutees in the program will improve by 85% accuracy, as measured by teacher-designed instruments, in their ability to complete learning station tasks in reading and following directions, in mathematics and in special interests (when they are assisted by student tutors).

2.) Given teacher-written prescriptions, tools and materials, tutor-aides will be able to develop and construct learning stations for the tutees as measured by demonstration.

3.) At the end of the school year, 75% of the sixth grade under-achievers in mathematics and reading, as a result of the motivation of working with the young adult tutors, will show greater gains in these subjects as measured by program-designed tests and more positive attitudes toward school as measured by improved attendance and greater class participation.

4.) Ninety percent of selected learners in grades 4-6 at Washington Highland Open Space School and in grade 4 at Assumption School who need to improve in the skill of selecting and completing appropriate learning station tasks will be able to accomplish this task with 85% accuracy after having received assistance from the tutor-aides in the Malcolm X Program.

The evaluators have assessed the program by their objectives. Specific evaluation objectives were to:

1.) Determine the level of improvement students have made in: (A) ability to complete learning station tasks in reading; (B) following directions in reading; and (C) ability to complete learning station tasks in mathematics and in special interests when assisted by student tutors.

2.) Examine the effectiveness of teacher-designed instruments to measure student progress and make suggestions.

3.) Assess the progress tutor-aides are making in the construction of learning stations, under the guidance of classroom teachers.

4.) Study the progress of the sixth grade under-achievers in mathematics and reading, at the end of the school year.

5.) Determine the extent of positive change that might have been achieved in student attitude toward school, by studying the attendance, attrition, and critical classroom incidents.

* 6.) Study the level of accuracy achieved by learners at the two new schools -- Washington Highland and Assumption -- who need to improve their skill of selecting and completing the appropriate learning station tasks.

7.) Make appropriate recommendations for the successful operation of the program in the future.

In order to achieve these objectives the evaluators have used several carefully selected methods and procedures that are explaned in the next chapter.

* (This objective was not implemented as stated because of reasons already noted in the introduction.)

Chapter II

METHODS AND PROCEDURES

A survey design has been used for this evaluation study. The design allowed a close examination of all components of the program, such as selection of students, tutor-aides, their training program, project staff and their experience and training, learning stations and their operation, involvement of other schools in program activities, and the overall effectiveness of the project in achieving the projected objectives.

The survey was conducted through a teacher questionnaire, a tutor-aide questionnaire, classroom visitations, selected interviews of project staff and students, and an intensive research of records to determine attendance, attrition, classroom incidents, student grades, teacher-made evaluation instruments, etc. All questionnaires and interview schedules were developed by the evaluation personnel and cleared through the Division of Planning, Research and Evaluation, prior to administering them in school.

All teacher and tutor-aides were given the questionnaire, and several of them were interviewed. Classroom visitations were conducted several times during the evaluation period, and at each time brief informal interviews were conducted with the teachers and the project director. Student interviews were previously arranged with the classroom teachers so that they would coincide with the visitations. Interview schedules for administrators, teachers, tutor-aides, and students were developed during the first phase.

Chapter III

FINDINGS

This chapter is divided into five major areas: 1.) Selection and Recruitment of Tutor/Aides; 2.) Test Results; 3.) Response from Teachers; 4.) Response from Tutor-Aides; and 5.) Attendance Reports. Specific evaluation instruments such as questionnaires, interviews, tests, attendance records, etc. have been used for collecting the necessary data from each of these four areas, and are included in the appendix.

The findings are strictly based on the primary and secondary data collected from the project. The primary data includes questionnaire response from teachers and tutors; interview and observation of tutees, tutors and teachers; and the test results as reported by the school system. Previous reports, attendance records and internal evaluation results have been treated as secondary data.

The questionnaire and interview have included tutors and teachers from both Malcolm X and Assumption School. However, test data are only from the Malcolm X Elementary School.

1.) Selection and Recruitment of Tutor/Aides

Tutor/Aides were selected for the fiscal year 75-76 project in two ways: first, those Tutor/Aides aleady in the program and interested in continuing for another year were selected on the basis of their past performance. Second, potential tutors recommended by the secondary school teachers and principals who participated in the project were also selected. Their selection was based on interest, attendance, scholastic achievement, and overall attitude toward the concept of the Tutor/Aide program. They were interviewed and screened by a committee of two program teachers, two tutors, and the program director(s).

Tutor/Aides were comprised of: 10th, 11th and 12th grade students from non-public schools in the area; 8th and 9th grade students from area public schools; and high school students residing in the area but attending non-public schools in other areas.

Tutor/Aide participants received one hour academic credit for instruction during school hours and a stipend for instruction after regular school hours. Arrangement for credit hours of Tutor/Aides was made through the home school coordination of student participation in the project with comparable student courses.

During the summer prior to the school year, principals and program sponsors from those secondary schools involved -- Hart Junior High, Johnson Junior High and Ballou Senior High public schools and St. Cecilia, Mackin and St. John's non-public high schools -- were personally contacted by the program director to reaffirm their committment. Orientation workshops were conducted for new program participants from Washington Highland and Assumption Schools to reiterate and assess with Malcolm X school staff, students and Tutor/Aides program achievements accomplished during the previous year, and to review and discuss plans for the operation of the program during the coming year. The program director and a selected training team composed of teachers, parent volunteers and former Tutor/Aides planned a summer training program for Tutor/Aides and Parent Assistants.

The Summer Training Activities were conducted during a three week period in August prior to the beginning of the school year. During the first week the training sessions oriented Tutors to open space activities and methods; provided Tutors with skills necessary for successful instruction in the areas of reading, mathematics and special interests; introduced Tutors to various kinds of appropriate testing techniques; developed awareness of alternative styles of learning and teaching; and involved the Tutors in the development of learning stations and other instructional material.

During the second week the training sessions involved former and new Tutor/Aides in mutually beneficial refresher Workshops; determined placement possibilities and performance aptitudes of Tutor/Aides for participation in the program; and developed higher level skills with the most capable Tutor/Aides in preparation for sixth grade pupil instruction.

During the third and final week Tutor/Aide selections were concluded; vital statistics of the Tutor/Aides were collected for record-keeping purposes; the interests and feelings of Tutors were ascertained through the administration of an Interest Inventory and a Feeling Inventory; a demonstration of the center in operation was made through a slide presentation; program aims were reviewed; question and answer sessions were conducted to efficate Tutor/Aide input into the program; and volunteers were enlisted to join a planning team.

Tutor training continued during the school year in an in-service regimen that required turor participation in seminars, workshops and training sessions at least twice weekly to introduce new materials, methods and resources to the program. A video machine for micro-teaching and tape recorders to record experiences for later evaluation were utilized during the continuation of the training program.

An ongoing assessment of Tutor/Aides' effectiveness in their work was made throughout the year at regularly scheduled time periods, monthly by cooperating teachers and at six week intervals by the director and cooperating school personnel. The criteria under consideration were: the extent of service rendered, the quality and quantity of service, attendance and attitudinal status.

2.) Test Results

Three kinds of tests were administered to students: the Prescriptive Math Test (PMT), the Prescriptive Reading Test (PRT), and the Botel Word Recognition Test. The first two tests were given at the beginning and at the end of the school year, whereas the Botel test was administered three times during the year. The total score based on mastered skills is given separately for each test.

The tables show the pre- and post-test results of the treatment group. A comparison group was used by the project staff for their own internal assessment purposes. Both groups were selected without any strict criteria other than the judgment of the classroom teachers. Therefore, the groups were not identical in every respect for comparing and reporting the differences in their performance. The findings of this formative evaluation is based upon the performance of the selected sutdents from Malcolm X, who have been tutored under the program.

Comparison of skills mastered at the post-test with that of the pre-test was made to show the gains each tutee made during the year. Their levels of significance have been computed by means of "t" test technique, where appropriate.

Both PMT and PRT were not of the same level for all students. For instance, some students took test A, while others took B, C, or D level tests. The total skills mastered varied according to the level at which the student took the test. The number of items on the test also varied if all students in the group did not take the same level test. For example, two students from the experimental group took a PMT level "C" test, whereas the rest of the students took that test at level "B".

There were only three students from the sixth grade who participated in the program. They have had the PRT pre- and post-tests. As Table 1 indicates, all three students have scored extremely well on the post-test compared to the pre-test.

The lowest scoring student who mastered only 22 skills (59.5%) out of 37 at the pre-test mastered 35 (94.5%) of the 37 on the post-test, showing an increase of 13 (35%) additional skills mastered. Similar increases can be noted for the other two students who jumped from 28 (71.8%) skills to 37 (94.9%) skills and from 27 (69.2%) to 34 (87.2%) respectively. Such marked increase must be attributed to the tutoring assistance provided by the young tutors under the program.

Table 1

Skills Mastered by Sixth Grade on PRT Pre and Post Tests

Pre-Test			Post-Test			Total # of Items	Difference Between Pre and Post Tests	
* Code	Skills Mastered		Code	Skills Mastered				
	f	%		f	%		f	%
18 E	22	59.5	18 E	35	94.5	37	13	35
19 E	28	71.8	19 E	37	94.9	39	9	23
20 E	27	69.2	20 E	34	87.2	39	7	18
N = 3			N = 3					

* In Table 1 and the tables that follow student test scores are reported according to their assigned student code designation.

The number of fifth grade students who participated in the Tutor/Aide program was eight (8) in all. They took both the pre and post test of PRT. As shown in Table 2 all but two of the eight students increased in the number of skills they mastered with a substantial margin. For instance, one student who mastered only 21 skills on the pre-test achieved 13 (34%) additional skills on the post-test. Similar increases are in evidence in the case of five other students.

Table 2

The Frequency and Percentage of the Fifth Grade PRT Pre and Post Test Results

Pre-Test			Post-Test			Total # of Items	Difference Between Pre and Post Tests	
Code	Skills Mastered		Code	Skills Mastered				
	f	%		f	%		f	%
12 E	21	53.8	12 E	34	87.2	39	13	34
23 E	35	89.7	23 E	34	87.2	39	-1	-2.7
24 E	32	82.1	24 E	32	82.1	39	0	0
13 E	27	69.2	13 E	34	87.2	39	7	18
14 E	13	33.3	14 E	17	43.6	39	4	10
15 E	20	51.3	15 E	27	69.2	39	7	18
16 E	29	74.4	16 E	37	94.9	39	8	20
17 E	24	61.5	17 E	35	89.7	39	11	28

N = 8 N = 8

One student who had mastered 35 (89.7%) of the 39 skills on the pre-test was able to score only 34 (87.2%) on the post-test. Another student did not mark any change in the number of skills he learned. Both seem to have been able students who would have progressed without the tutoring help. Perhaps, the selection criteria used for identifying the target group should be further examined to find the actual cause of this impasse. Otherwise, by and large, the fifth graders who participated in the program benefitted by it, with substantial gains in their reading skills.

The fourth grade PRT pre-test was administered to all 11 students who participated in the Tutor/Aide program. The test included levels A (21 skills), B (45 skills), and C (39 skills), depending on the level at which each student was performing at the beginning of the school year. Nevertheless, four students who took PRT Level A pre-tests took level B post-test and scored relatively well. No comparisons of skills achievement of pre and post tests can be made for those students who changed their levels of test by the end of the year. The minus score difference shown in Table 3 is, therefore, not an indication of poor performance. They should be viewed as advancements by students from a lower level of achievement to a higher level in the mastery of certain basic reading skills.

Two students, however, did show a decline in their level of performance on the post-test, even though they took the pre and post tests at the same level. One student declined by about 11 skills (-25%), which was the highest single decline among all students who participated in the program. It is believed that this decline was due to prolonged absence of the student from the program because of illness and other family problems.

All other students demonstrated substantial gain on the post-test. As was stated earlier, the fact that five of the eleven students moved from PRT level A test to level B test is especially noteworthy.

The pre-test of the Prescriptive Mathematics Test (PMT) involved only 5 students. Three students were from the fifth grade and 2 were from the fourth grade. No sixth grade students participated in the Mathematics Tutor/Aide assistance. Grade differentiations were not made in Table 4, because of the small size of the group involved in the mathematics tutoring program. The first two students reported on the table are fourth graders and the remaining three are fifth graders.

All students who participated in the mathematics tutoring program did better on the post-test than on the pre-test. With the exception of one fourth grader, all students increased 15% or more in their mathematics skills.

Table 3

Frequency and Percentage of Fourth Grade PRT Pre and Post Test Results

Pre-Test				Post-Test				Difference Between Pre and Post Tests	
Code	Skills Mastered		Total # of Items	Code	Skills Mastered		*Total # of Items		
	f	%			f	%		f	%
03 E	36	80	45	03 E	42	93.3	45	6	13.3
01 E	17	81	21	01 E	15	71.4	21	-2	-10.4
04 E	16	35.6	45	04 E	31	68.9	45	15	-34
05 E	18	85.7	21	05 E	34	75.6	45	* 16	-10
21 E	37	94.9	39	21 E	28	75.7	37	* 9	-20
06 E	16	76.2	21	06 E	20	95.2	21	4	20
07 E	18	85.7	21	07 E	29	64.4	45	* 11	-21
09 E	14	66.7	21	09 E	15	71.4	21	1	5.3
10 E	20	95.2	21	10 E	35	77.8	45	* 15	-18
22 E	19	90.5	21	22 E	19	42.2	45	* 0	-48
11 E	33	73.3	45	11 E	22	48.9	45	-11	-2.5

N = 11 N = 11

* The student took a level B post-test where total skills to be mastered were 45.

Table 4

Frequency and Percentage of PMT Pre and Post Test Results for the Fourth and Fifth Grade Students

Pre-Test				Post-Test				Difference Between Pre and Post Tests	
Code	Skills Mastered		Total # of Items	Code	Skills Mastered		Total # of Items		
	f	%			f	%		f	%
01	29	52.7	55	01	30	54.5	55	1	1.8
02	11	20	55	02	44	80	55	33	60
05	23	41.1	56	05	33	58.9	56	10	18
06	14	25	56	06	24	42.9	56	10	20
07	35	63.6	55	07	43	78.2	55	8	15
N = 5				N = 5					

One student achieved a remarkable 60% improvement on the post-test over his pre-test performance. The probability of "chance factor" is suspected in this particular case.

Students took pre and post tests on the same levels. The tests were given on levels B and C. Teachers felt that all of the PMT students were originally tested at the proper level and that there was no reason to move from these levels when the post test was given.

In addition to the PRT and PMT, the Botel Word Recognition Test was administered three times during the year. The test contains several analogies, picture completions, object identifications, etc. to assess the extent of vocabulary skills students have achieved. Very few tutees took the test when it was first administered in October, and the reasons for this are unclear. Therefore, only second and third quarter results have been used for this evaluation report.

The test was given to twenty students representative of all three grade levels -- fourth, fifth and sixth grades -- participating in the program.

Out of the twenty students who took the second and third quarter tests, only three students did not improve in their test score from the second to the third quarter. In many cases the score increase was very high, and an average of 50% or more skills were mastered by the year's end. Table 5 provides the results of the Botel Word Recognition Test. The group mean increased from the second to the third quarter from 12.1 to 14.05 with a difference of two skills. The mean difference has been rated as 2.25 for the group.

Three students scored a decline in the number of skills they mastered, while three remained unchanged. The remaining 14 students increased their word recognition ability from 1 to 6 skills. The stagnant skills of three students may be due to at-home factors.

The Botel test is a meaningful measure of student vocabulary skills. Positive test results confirm observational and interview findings (reported later in this evaluation) of tutee improvement in the classroom environment. Generally speaking, students improved well on all reading and other language tests. Mathematics appears to be the only area requiring further skill mastery; and headway has even been made in this area, as Table 4 indicates.

Table 5

The 2nd and 3rd Quarter Scores of Botel Word Recognition Test for the Experimental Group

Code	Skills Mastered				Difference Between Second and Third Quarter Skills	
	2nd Q.	*%	3rd Q.	%	f	%
014	9	40.9	11	50	2	11
02E	9	40.9	10	45.5	1	5.5
03E	15	68.2	17	77.3	2	11
04E	8	36.4	13	59.1	5	23
05E	15	68.2	17	77.3	2	11
06E	9	40.9	12	54.5	3	15.5
07E	11	50	10	45.5	-1	-5.5
08E	1	4.5	1	4.5	0	0
09E	4	18.2	10	45.5	6	27
10E	21	95.5	17	77.3	-4	21
11E	11	50	17	77.3	6	27
12E	15	68.2	14	63.6	-1	-5.5
13E	12	54.5	15	68.2	3	15.5
14E	10	45.5	12	54.5	2	11
15E	11	50	14	63.6	3	15.5
16E	15	68.2	20	90.9	5	23
17E	14	63.6	17	77.3	3	15.5
18E	19	86.4	19	86.4	0	0
19E	16	72.7	18	81.8	2	11
20E	17	77.3	17	77.3	0	0
N = 20	Mean = 12.1		Mean = 14.05		Mean Difference = 2.25	

* The percentages are calaculated from 22, the maximum number of skills one could have mastered.

3.) Teacher Questionnaire Response

The chief responsibility of teachers was to guide the tutors and to assist the project director in the training of tutors. They also helped in the internal assessment of students and tutors.

Questionnaires were distributed to 17 teacher participants in the Malcolm X Tutor/Aide Program to help evaluate the total effectiveness of the program. Teachers came into the program from Malcolm X and Assumption Schools, but the nine teachers who completed the questionnaire (52.9% of the entire teaching support staff) were all faculty members of Malcolm X. Although this rate of return was not especially high, Malcolm X faculty members were well placed to evaluate program achievement in meeting the needs of their students in a learning environment with which they were especially familiar.

Most Malcolm X teachers were responsible for instruction in more than one grade, ranging from the third through the sixth grades. Tutees tended to be concentrated in the same grade levels in which teacher staffers were involved in instruction. Five (55.6%) teachers each taught third, fourth and sixth grade pupils, and six (66.7%) teachers taught students enrolled in the fifth grade. Teacher instruction over a wide range of grade levels provided program support staff with an expertise based on actual in-class experience with students learning at many grade and skill levels. Since student tutors tended to have limited experience in actually teaching tutees, and were primarily oriented to participation in the program through work in an initial training course, the teaching staff component of the program was the necessary source of authoritative decisions governing both the administration of the program and the establishment of goals for tutees and tutors.

Staff teachers not only were experienced in instruction on diverse grade levels, but for the most part had derived experience in teaching over a fairly lengthy duration of time. Only two staff members were in their first year of teaching while participating in the program. One (11.1%) teacher had been teaching from one to two years, and six (66.7%) teachers had been teaching from three to four years. Table 6 indicates a teacher staff composed of moderately experienced instructors. None of the respondents could be considered veterans of the teaching profession, in the traditional sense, and all seem to be capable of the expertise and open-mindedness that is requisite for the successful initiation of innovative techniques for student improvement in a tutor-tutee working environment.

Table 6

Teacher Grade Levels

	Frequency	Percentage
Non-graded	4	44.4
1st Grade	-	-
2nd Grade	-	-
3rd Grade	5	55.6
4th Grade	5	55.6
5th Grade	6	66.7
6th Grade	5	55.6
Total	25 *	

N = 9

* Some teachers reported teaching at more than one level and, therefore, the total is different from the actual N.

Teacher experience in the tutor-aide program exceeded actual teaching experience in D. C. Public Schools in 2 cases, and was somewhat less than public school teaching experience in 4 cases. No teachers reported less than one year experience in the program. Seven (77.7%) staff members comprised the majority that reported 1 to 2 years experience in the tutor-aide program. Two (22.2%) teachers were involved in the program, or similarly innovative programs, from 3 to 4 years. Teachers were clearly not new-comers to the tutor-tutee strategy of education, and had the experience necessary for dealing with the problems presented in a unique educational environment.

Teacher selection for the program was not haphazard, but was generally made on the basis of teacher interest in the program evidenced when 4 (44.4%) teachers acted as members of the floor team in the past; when 1 (11.1%) teacher recommended students for participation in the program; and when 1 (11.1%) teacher was influenced by the high level of tutor-aide performance. Three teachers (33.3%) did not respond to this item. Significantly, teachers came into the program only after they had somehow become involved in an aspect of the program at first-hand.

Table 7

Duration of Total Teaching Experience

	Frequency	Percentage
Less than one year	2	22.2
1 - 2 years	1	11.1
3 - 4 years	6	66.7
Total	9	100.0

Table 8

Duration of Teacher Experience in Tutor-Aide Program

	Frequency	Percentage
Less than one year	-	-
1 - 2 years	7	77.8
3 - 4 years	2	22.2
Total	9	100.0

Table 9

Teacher Selection Methods

	Frequency	Percentage
A. Being a member of the floor team (based on L. C. 300)	4	44.4
B. Recommending students to the program	1	11.1
C. Influenced by the tutor-aide's work	1	11.1
D. No Response	3	33.4
Total	9	100.0

Staff teachers provided support for tutors by helping devise learning strategies in an important component of the program, the learning stations, that were used primarily to assist tutors in orienting themselves to the needs of their tutees. Teachers also assisted tutors in working with tutees in specific skill areas and in orienting the physical space and materials available for instruction.

Two (22.2%) teachers responded that they specifically performed tasks involving working with learning stations. Two (22.2%) teachers worked on specific skills. One (11.1%) teacher suggested adequate materials to be used with tutees. Five (55.5%) teachers did not respond to this question, and it can be safely assumed that the tasks they performed in the project touched upon the areas listed by responsive teachers.

Table 10

Specific Tasks Performed By Teachers

	Frequency	Percentage
A. Working with stations	2	22.2
B. Working on specific skills	2	22.2
C. Suggesting [illegible]e materials to be used [illegible]utees	1	11.1
D. No Response	5	55.5
Total	10 *	

* Some teachers performed more than one task, making the total higher than the actual number of teachers responding.

Teachers were asked to list the major learning stations set up by tutor-aides under their direct supervision. Six (66.6%) did not respond to this item on the questionnaire. Two (22.2%) teachers responded that they set up no learning stations. Only two (22.2%) teachers reported directly supervising the formation of learning stations in the areas of consonant blends and vowels. Teacher response to this item does not adequately reflect the nature of the work performed in the learning stations. A more detailed listing of learning stations can be found later in this report in the section concerned with the analysis of data provided by answers to the tutor questionnaire.

Table 11 Learning Stations Teachers Supervised		
	Frequency	Percentage
A. Consonant Blends	1	11.1
B. Vowels	1	11.1
C. No Response	6	66.6
D. None	2	22.2
Total	10 *	

* In this table, as in the table that preceeds it, N does not equal 9 or 100%, since more than one response was made by one or more teachers to each question.

Teachers rated tutors in thirteen areas: ability to design learning stations, punctuality, interest in the program, ability to follow directions, cooperation with others on the job, attitude toward school, future aspirations as talked about, willingness to help others, attendance, improvement in reading, improvement in Mathematics, instructional material developed and other factors.

Teacher ratings were generally concerned with tutor abilities, tutor performance in the project, tutor attitude and tutor improvement in reading and mathematics skills. No tutors received a "Below Average" or "Poor" rating for any item listed, even though the teachers were given those options.

Tutors received the highest ratings in areas that measured attitudes. Five (55.6%) tutors received an "Excellent" rating for interest in the program. Four (44.4%) tutors received "Excellent" ratings in the areas of attitude toward school and willingness to help others. Teacher ratings tend to reinforce the conclusion obtained from tutor questionnaire data that students were well motivated for participation in the project.

Four (44.4%) tutors received "Excellent" ratings for their punctuality or attendance. Students seemed generally weakest in dealing with project materials, and five (55.6%) students received only an "Average" rating for developing instructional materials.

Table 12

Teacher Ratings of Tutors

	Excellent	Good	Average	NA
	f	f	f	f
A. Ability to design learning stations	1	5	2	1
B. Punctuality	4	3	2	-
C. Interest in the program	5	2	2	-
D. Ability to follow directions	4	3	2	-
E. Cooperation with others on the job	3	3	3	-
F. Attitude toward school	4	2	3	-
G. Future aspirations as talked about	2	4	2	-
H. Willingness to help others	4	4	1	-
I. Attendance	4	4	1	-
J. Improvement in reading	-	4	3	2
K. Improvement in Mathematics	-	3	3	3
L. Instructional material developed	-	2	5	2
M. Other factors (please specify) -- (ability to complete jobs assigned)	-	1	-	8

Students received moderately high ratings for their ability to follow directions: 4 (44.4%) students were rated "Excellent," 3 (33.3%) "Good," and 2 (22.2%) "Average." However, students received less enthusiastic ratings for their ability to design learning stations: 1 (11.1%) students was rated "Excellent," 5 (55.6%) "Good," and 2 (22.2%) "Average." Although students often failed to complete work on specific areas in learning stations, the stations were a central element in the program and were essential to tutor-tutee activities.

Tutors received good to moderately good ratings in the areas of reading and mathematics improvement. No tutors received a rating of "Excellent" in either category. In reading improvement 4 (44.4%) tutors received "Good" ratings, 3 (33.3%) "Average" ratings and 2 (22.2%) the teacher response that the item did not apply. In mathematics improvement 3 (33.3%) tutors received "Good" ratings, 3 (33.3%) "Average" ratings, and 3 (33.3%) the teacher response that the item did not apply. Since tutors were involved in the program in reading and mathematical instruction on a much lower level than they were proficient at in those subjects, failure for teachers to discern extraordinary improvement in those areas is understandable. The high rate of the "Not Appropriate" response by teachers also indicated the peripheral bearing the project was deemed to have upon tutor improvement in reading and mathematics.

Three tutors received "Excellent," "Good," and "Average" ratings respectively for their cooperation with others on the job. One tutor specifically received a "Good" rating for the ability to complete jobs assigned.

Teacher ratings of tutors are generally excellent, while indicating some room for improvement in the development of innovative materials to be used in the program.

Student interest in the tutor-aide program often indicates vocational interest in the teaching profession. Two (22.2%) students received "Excellent" ratings for their future aspirations, while 4 (44.4%) students received "Good" ratings and 2 (22.2%) received "Average" ratings.

Table 13

Frequency and Percentage of Teachers by the Number of Tutees from Their Respective Classes They Taught

	Frequency	Percentage
None	1	11.1
1 - 2	1	11.1
3 - 4	4	44.4
5 - 6	2	22.2
7 - 8	1	11.1
Total	9	100.0

Only one teacher respondent had none of his own students participating in the tutorial program. Four (44.4%) teachers had 3 or 4 tutees from their own classes, and 3 teachers had between 5 and 8 of their own pupils enrolled in the program. Table 13 indicates that teacher participants were able to correlate the classroom needs of their students with tutorial activities, since they were familiar with those students in both classroom and tutorial environment. Teachers were an authoritative means of support for tutors, since they knew, in many instances, the tutees as well as their own students.

In the opinion of teachers the Malcolm X program had a definite effect on tutee reading improvement. Three (33.3%) students improved 25% in their reading skills, 2 students (22.2%) improved 50% and 3 students (33.3%) improved 75%. While these high rates of improvement would be considered an outstanding accomplishment in a classroom teaching environment, they are even more so in a tutorial program that is more limited in time. Although it is impossible to separate the effects of classroom instruction from tutorial instruction, Malcolm X appears to be a significant integral to improved reading ability in elementary school children.

Table 14

Tutee Improvement in Reading
As Reported by Teachers

% of Improvement	Frequency	Percentage
25%	3	33.3
50%	2	22.2
75%	3	33.3
No Response	1	11.1
Total	9	100.0

In the opinion of responding teachers the Malcolm X program had a definite effect on tutee mathematics improvement. One (11.1%) student improved 25% in mathematics skills; two (22.2%) students improved 50%; and one (11.1%) student improved 75%. However, 5 (55.6%) teachers did not respond to this question. In the opinion of four teachers Malcolm X is a significant integral to improved mathematics ability in elementary school children. However, a comparison of teacher response in Tables 14 and 15 tends to confirm the impression given by learning station listings that the tutorial program put greater emphasis upon verbal skills than mathematical skills.

Table 15

Tutee Improvement in Mathematics
As Reported by Teachers

% of Improvement	Frequency	Percentage
25%	1	11.1
50%	2	22.2
75%	1	11.1
No Response	5	55.6
Total	9	100.0

Teachers indicate in Table 16 an especially high rate of tutee improvement in attitude toward school. One (11.1%) student improved 25%; two (22.2%) improved 50%; and five (55.6%) students improved 75% in school attitudes. Malcolm X appears to have been especially successful in fostering improved student motivation for learning in a school environment.

Table 16

Improved Tutee Attitudes to School
As Reported by Teachers

% of Improvement	Frequency	Percentage
25%	1	11.1
50%	2	22.2
75%	5	55.6
No Response	1	11.1
Total	9	100.0

Teachers indicate in Table 17 an especially high rate of tutee improvement in following directions accurately. One (11.1%) student improved 25%; two (22.2%) improved 50%; and five (55.6%) students improved 75% in accurately following directions. Malcolm X appears to have improved student ability to listen to and understand directions and execute those directions. The degree of success in this area is as high as in the previous area of tutee attitude toward school.

Table 17

Tutee Improvement in Following Teacher/Tutor Directions Accurately As Noted by Teachers

% of Improvement	Frequency	Percentage
25%	1	11.1
50%	2	22.2
75%	5	55.6
No Response	1	11.1
Total	9	100.0

Table 18 indicates improved tutor ability in completing learning station tasks in reading, mathematics, and special interests. The results in this table tend to verify the findings of the previous tables.

Teachers registered the greatest tutee improvement in the area of improved ability to complete learning station tasks in reading. Two (22.2%) students improved 25% and 4 (44.4%) students improved 75%. Three (33.3%) teachers either marked this item "NA" or did not respond.

Again, there does not seem to be as much teacher interest in the area of mathematics, although it has been one of the top priority areas. Six (66.7%) teachers either marked this item "NA" or did not respond. In the tutor listing of learning stations only one area, multiplication, pertained to tasks in mathematics. Of those few teachers who did respond to this item, all noticed a high rate of improvement in their students. One (11.1%) student improved 50% and 2 (22.2%) students improved 75% in their ability to complete learning station tasks in mathematics.

Five (55.6%) teachers did not respond to the area of special interests. Of those teachers who did respond to this item, all noticed an improved rate of student ability to complete learning station tasks of special interest. One (11.1%) student improved 25% and 3 (33.3%) students improved 75%. Non-involvement of responding teachers in special interest programs was the mair reason for such a high percentage of "No Response" in this particular area.

The low rate of teacher response in Table 18 for items pertaining to mathematics and special interests reflects the predominately verbal content of most learning stations in the

Table 18

Tutee Improvement in Completing Learning Station Tasks As Noted by Teachers

% of Improvement	Frequency	Percentage
Reading		
25%	2	22.2
50%	0	0
75%	4	44.4
NA	1	11.1
No Response	2	22.2
Total	9	100.0
Mathematics		
25%	0	0
50%	1	11.1
75%	2	22.2
NA	1	11.1
* No Response	5	55.6
Total	9	100.0
Special Interests		
25%	1	11.1
50%	0	0
75%	3	33.3
* No Response	5	55.6
Total	9	100.0

* High level of "no response" was due to the fact that these teachers were not involved in Mathematics and Special Interest programs.

project. It could also be that the responding teachers were mostly non-math teachers or non-special interest teachers.

Six of the teachers (66.7%) responding did not report developing any instructional materials. Teacher developed instructional materials included: learning station games (3 teachers or 33.3%), learning packages (1 teacher or 11.1%), experience charts (1 teacher or 11.1%), word boxes (1 teacher or 11.1%), and sentence and phrase packages (1 teacher or 11.1%).

Although a majority of teachers and tutors did not actively engage in the development of instructional materials for the program, instructional materials dealing with learning techniques and verbal skill areas were jointly developed by the tutors and tutees under the guidance of the project staff.

Table 19

Instructional Materials Developed

	Frequency	Percentage
A. Learning station games	3	33.3
B. Learning packages	1	11.1
C. Experience charts	1	11.1
D. Word boxes	1	11.1
E. Sentence, phrase packages	1	11.1
F. NA	1	11.1
G. No Response	5	55.6
* Total	13	

* N does not equal 9 or 100% in this table, since respondents gave more than one answer in some cases.

Teachers were asked to comment on the extent of tutor help in the development of instructional materials. Those teachers who did respond indicated that they received a considerable amount of assistance from tutors in the development of instructional materials for the program. No teachers responded that tutors helped them to no extent. Two (22.2%) teachers found tutors helpful to a great extent and 2 (22.2%)

found tutors helpful to some extent. Again, five (55.6%) teachers did not respond to the item for reasons unknown. It is possible that they were only resource teachers whose indirect involvement in the project did not designate them to assist with the instructional material development.

Table 20

Tutor-Aide Development of Instructional Materials As Reported by Teachers

Extent of Tutor Help	Frequency	Percentage
Great Extent	2	22.2
Some Extent	2	22.2
No Extent	0	0
No Response	5	55.6
Total	9	100.0

By and large, teacher questionnaire responses were positive toward tutee improvement in the critical skill areas of reading and in areas dealing with student attitudes and motivation. The degree of tutee improvement in these areas indicates a high success rate for the program. Tutors chosen for the program were capable and performed well in their instructional activities. The project seems, in the opinion of teachers, to have special value as a supplement to normal in-class instruction at an elementary school level.

Those teachers who did have students for mathematics did show a high interest rate in the area. The reason for a high rate of no response in the mathematics area seems to be due to the fact that those teachers did not have any mathematics students in the program. It is evident from the data, however, that more attention is needed in mathematics to achieve the "85% accuracy" for "90% students."

4.) Response from Tutor-Aides

Eighteen (94.9%) of the 19 tutor-aides took part in the questionnaire survey. Their reactions to various items are quite contrasting, reflecting the overall feelings of high school students involved in the same endeavor. Although there were a few suggestions for improvement, by and large, the tutors seem to have liked the program, and were quite enthusiastic about the "mutual benefit" aspect of the program. The tables and narratives given below further substantiate this general observation.

Tutors in the Tutor/Aide Program at Malcolm X Elementary School came from three schools: 3 (16.7%) from Hart, 4 (22.2%) from Johnson and 11 (61.1%) from Ballou High School; and represented all four senior high grade levels: 7 (38.9%) in the 9th grade, 4 (22.2%) in the 10th grade, 5 (27.8%) in the 11th grade and 2 (11.1%) in the 12th grade.

Table 21

Schools Tutors Attended

Name of School	Frequency	Percentage
Hart	3	16.7
Johnson	4	22.2
Ballou	11	61.1
Total	18	100.0

Table 22

Tutor Grades

Grade Level	Frequency	Percentage
9th grade	7	38.9
10th grade	4	22.2
11th grade	5	27.8
12th grade	2	11.1
Total	18	100.0

The duration of time tutors participated in the project was, on the average, a maximum of 8.1 months, with 8 (44.4%) tutor participants completing 5 months or less in the program. Only 2 (11.1%) of the 18 tutor participants were involved in the project for an extended period of time, 12 - 24 months. Eight (44.4%) tutors participated for a moderately extended period of time, 6 - 9 months. The moderate durations of tutor participation may be a short-coming in the program, since tutor experience in working with students tends to be limited to the actual amount of time of direct tutor involvement in the program. However, an effective training program has been included in the project for the purpose of developing a good foundation for the valuable resource of teaching experience. Staff assistance for tutors is important under such circumstances, and as indicated later, seems to have been provided to a sufficient degree.

Table 23

Duration of Tutor Participation in the Program

	Frequency	Percentage
12 - 24 months	2	11.1
10 - 11 months	0	0
8 - 9 months	7	38.9
6 - 7 months	1	5.6
4 - 5 months	3	16.7
2 - 3 months	4	22.2
1 month	1	5.6
Total	18	100.0

Participation limited to 2 - 3 months (4 or 22.2% of all tutors) and 1 month (1 or 5.6% of all tutors) suggests too brief a period of time for tutors to become deeply involved in the personal needs and learning requirements of their tutees, as well as the larger goals set for the entire project, although such limited participation is capable of having some immediate bearing upon student improvement.

Thirteen (72.2%) of the tutors attended to the learning needs of 2 students each. Although this is certainly a small enough load for tutors to handle, it tends to compound the problem of achieving successful rapport during a limited period of acquaintance. Furthermore, tutees spanned the first six grade levels, requiring tutor proficiency in instruction over a fairly wide range of skill levels.

Table 24

Number of Tutees Assigned to Tutors

Number of Tutees Assigned	Frequency	Percentage
One Student	5	27.8
Two Students	13	72.2
Total	18	100.0

Tutors seem to have been fairly well motivated in undertaking participation in the Malcolm X Program, as indicated by the list of 3 major reasons for participation in Table 25. Fifteen (83.3%) of all tutors responded that they wanted to help others. Twelve (66.7%) responded that they were interested in teaching. Other reasons cited suggest, to varying degrees, that outside forces lead to an affirmative decision for participation.

Thirteen (72.2%) tutors cited the monetary aspect of the program, and this was the second most common reason given. Other factors listed are: bored with the routine work (4 or 22.2%), my teacher persuaded me (2 or 11.1%) and my parents persuaded me (1 or 5.6%). One tutor identified none of these items as a factor leading to a decision to participate, while 2 tutors identified all items as decisive factors. Tutor motivation, while not entirely altruistic, does reflect a realistic combination of forces apt to give impetus to any decision for taking affirmative action in any field of endeavor.

Furthermore, tutor selection (with which 17 or 94.4% of all tutors were satisfied) was made according to criteria that emphasized tutor ability. Seven (38.9%) were selected because of their successful voluntary participation in a training course; three (16.7%) through teacher recommendation; six (33.3%) through a manifest interest in helping younger

Table 25

Reasons for Tutor Participation in the Program As Reported by Tutors

	Frequency	Percentage
A. Wanted to help others	15	83.3
B. Needed the money	13	72.2
C. Bored with the routine work	4	22.2
D. Interested in teaching	12	66.7
E. My teacher persuaded me	2	11.1
F. My parents persuaded me	1	5.6
G. None of the above	1	5.6
H. All of the above	1	5.6
I. No response	2	11.1
*Total	51	

* Total varies as each tutor checked more than one item.

children; and only 2 (11.1%) because they were seeking a job. Clearly, student tutors were not enrolled into the program merely for the opportunity of receiving remuneration for their academic services.

Table 26

Tutor Selection Criteria

	Frequency	Percentage
A. Took the course voluntarily	7	38.9
B. Recommended by a teacher	3	16.7
C. Interested in children	6	33.3
D. Seeking a job	2	11.1
Total	18	100.0

Table 27

Tutor Satisfaction With Selection Criteria

	Frequency	Percentage
Satisfied	17	94.4
Not Satisfied	1	5.6
Total	18	100.0

The list of completed learning station units in Table 28 reflects program emphasis upon the development of verbal rather than mathematical skills. The greatest frequency of response occurred in the areas of outlines, rhyming words, vowels and homonyms, with 3 or 16.7% of all tutors identifying these items. Verbal skill areas that were identified by 2 or 11.1% of tutors were: word blends, Bicentennial stations, drive your way to the word wheel and dictionary skills. Least frequently identified verbal skill areas, cited by 1 or 5.6% tutor each were: compound word bouncing, rooting with root words and reading stations. Two or 11.1% tutors stated that no learning stations were completed. The only mathematical learning station listed, multiplication, was cited by 2 or 11.1% of all tutors.

Table 28 indicates tutor-tutee work in a wide range of verbal learning station. Efforts were not conentrated in a few areas. Therefore, completion of learning stations was generally low for each learning station listed, although a majority of work in the learning stations was completed in the general area of words.

Table 29 indicates that tutors found learning centers useful: in planning (11 tutors or 61.1%), in suggesting activities (11 tutors or 61.1%), in getting started with the tutees (8 tutors or 44.4%), and in organizing the learning stations (7 tutors or 38.9%).

Tutors found learning centers useful to a lesser extent: to collect materials (5 tutors or 27.8%), to arrange the space (3 tutors or 16.7%), to orient in the use of Open Space (3 tutors or 16.7%), to evaluate the students (2 tutors or 11.1%), and in solving major problems (2 tutors or 11.1%). Two tutors cited that they found the stations useful for all the items listed, and no tutors found the learning stations completely useless. One tutor specified that the stations

Table 28

Completed Learning Stations
As Reported by Tutors

Learning Stations	Frequency	Percentage
A. Word blends	2	11.1
B. Compound words bouncing	1	5.6
C. Rooting with root words	1	5.6
D. Bicentennial stations	2	11.1
E. Multiplication	2	11.1
F. Outlines	3	16.7
G. Rhyming words	3	16.7
H. Vowels	3	16.7
I. Homonyms	3	16.7
J. Drive your way to the word wheel	2	11.1
K. Dictionary skills	2	11.1
L. Reading stations	1	5.6
Total	25	

helped her to realize that she had "to tolerate the tutees and get used to them in order to have a better session." Table 29 enumerates tutor response to each item and signifies the highly useful role played by the learning stations in the orientation of tutor-tutee activities. Learning stations proved to be a satisfactory technique for program administration on the instructional level.

Table 30 represents tutor opinion of various aspects of the program. Tutors appreciated most the opportunity to use their own ideas in the program (12 tutors or 66.7% rated this item "excellent," although 1 tutor or 5.6% rated it as "poor"). Eleven tutors or 61.1% rated the following items

Table 29

Tutor Uses of Learning Stations

	Frequency	Percentage
A. In planning	11	61.1
B. In suggesting activities	11	61.1
C. To get started with the tutees	8	44.4
D. To evaluate the students	2	11.1
E. To orient in the use of open space	3	16.7
F. To collect materials	5	27.8
G. To arrange the space	3	16.7
H. In solving major problems	2	11.1
I. To organize the learning stations	7	38.9
J. All of the above	2	11.1
K. None of the above	0	0
L. Other (Specify) ("To help me realize that I had to tolerate the tutees and get used to them in order to have a better session.")	1	5.6
* Total	55	

* The total varies from N as each tutor was allowed to check more than one item.

"Excellent": teacher assistance to tutors, lessons taught through learning stations, opportunity to share problems. Tutor-aides responded most favorably to those items that provided a composite picture of a creative and supportive work atmosphere.

Table 30

Tutor Ratings of Staff Support, Facilities, Learning Strategies and Students in the Malcolm X Program

	Excellent		Average		Poor		Total	
	#	%	#	%	#	%	#	%
A. Training given to tutors	8	44.4	10	15.6	-	-	18	100
B. Teacher assistance to tutors	11	61.1	6	33.3	-	-	17	94.4
C. Open space facility	9	50.0	5	27.8	-	-	14	77.8
D. Instructional material developed	5	27.8	8	44.4	-	-	13	72.3
E. Lessons taught thru learning stations	11	61.1	7	38.9	-	-	18	100
F. Internal evaluation of tutors	4	22.2	13	72.2	-	-	17	94.4
G. Schedule of activities planned for tutors	6	33.3	10	55.6	1	5.6	17	94.4
H. Opportunity to use own ideas	12	66.7	4	22.2	1	5.6	17	94.4
I. Opportunity to share problems	11	61.1	6	33.3	-	-	17	94.4
J. Student attitude towards school	2	11.1	16	88.9	-	-	18	100
K. Student attendance	9	50.0	9	50.0	-	-	18	100
L. Student ability to follow directions	4	22.2	14	77.8	-	-	18	100
M. Student attitude towards their tutors	10	55.6	8	44.4	-	-	18	100
N. Other (Specify) (Better pay)	-	-	-	-	2	11.1	2	11.1

Tutors were moderately enthusiastic about the training given to tutors, the open space facility, the instructional materials developed, the schedule of activities planned for tutors, and the student attitude toward their tutors, evidence that there may be further room for improvement in developing rapport between tutors and program staff as well as between tutors and their students. The failure of the open space facility to elicit a more enthusiastic response from tutors may reflect the need for greater control and creativity on the part of the program staff, since open space strategies tend to require mature and imaginative planning if they are to be successful, especially if these learning strategies are not used in the rest of the student curriculum on a regular basis.

Although there were only two negative responses to all listed items, areas of least tutor enthusiasm were: the internal evaluation of tutors (13 or 72.2% "average" rating), student attitude toward school (16 or 88.9% "average" rating), and student ability to follow directions (14 or 77.8% "average" rating). The last questionnaire result suggests, perhaps, a lack of tutor patience for students that is entirely understandable given the fairly young ages of all involved, although efforts should be made to foster greater student and tutor appreciation of the mutual benefits involved in the program.

Two tutors (11.1%) specified that the pay they received for their participation in the program was poor. Considering that there is no response category scaled between "Excellent" and "Average" ratings, Table 3 suggests a fairly high rate of tutor approval of program tactics.

Student response in Table 31 indicates that tutors generally felt that their participation in the program was worthwhile. Nine (50%) tutors cited that they liked helping students most in the program. Five (27.8%) tutors found the program enjoyable. Four (22.2%) tutors liked the teachers and their work, indicating that staff support of tutors did not go entirely unnoticed and was appreciated by a moderately large number of tutors. Four (22.2%) tutors cited that they found the opportunity to help others the chief asset of the program. Other responses include: Open Space School (3 tutors or 16.7%), Getting paid (2 tutors or 11.1%), Getting credit from school (1 tutor or 5.6%), and Students having a better chance of learning (1 tutor or 5.6%).

An interesting aspect of Table 31 is the fairly low response to items dealing with either financial or academic remuneration for participation in the program. Though students suggested in a later part of this questionnaire (Table 35) that payment was an important matter to them, it clearly is not as important as the larger goal of the program to help other students.

Table 31

What Tutors Liked Most About the Program

	Frequency	Percentage
Helping students	9	50.0
Enjoyable program	5	27.8
Liked the teachers and their work	4	22.2
Helping others	4	22.2
Open Space School	3	16.7
Getting Paid	2	11.1
Getting credit from school	1	5.6
Way tutors discuss things among themselves	1	5.6
Students have a better chance of learning	1	5.6

Table 32 indicates tutor interest in continued participation in the program. Although a dissappointingly small number of tutors (11 or 61.1%) responded that they were not interested in joining a similar program next year, only 3 (16.7%) tutors responded negatively because of lost interest in the program. Reasons for not continuing (Table 33) include: graduating, changing school, and needs a better paying job. Although this does give an opportunity for other interested and competent students to become involved in the program, good experience is worth much more than new blood to the project for its continued success; and if there are ways to keep the talented and experienced tutors for a longer period of time, they would certainly prove beneficial to the program. The resource of trained and experienced students is vital for the continued growth and propogation of the program.

Four (22.2%) tutors backed up their negative response for continuation in the program with the explanation that they would be too much involved in school work during the coming year; and five (27.8%) commented that they would be working. (Two or 11.1% of the participants were Seniors in High School and would not be enrolled in the District of Columbia Public Schools Program during the coming year.) That only 7 (38.9%) tutors wish to continue in the program was an unexpected response, somewhat mitigated by reasons tutors gave in support of that answer.

Table 32

Tutor Interest in Continued Participation in the Program

	Frequency	Percentage
Yes (Will Continue)	7	38.9
No (Will Not Continue)	11	61.1
Total	18	100.0

Table 33

Tutor Reasons for Not Continuing in the Program

	Frequency	Percentage
A. Lost interest	3	16.7
B. Too much involved in school work	4	22.2
C. Will be working	5	27.8
D. Graduation	3	16.7
E. Change of school	3	16.7

Tutor reasons for wanting to continue in the program to a great extent reflect their motives for initially entering into the program. Six (33.4%) of all tutors answered that they liked to help people. Two (11.1%) liked to work with children, while 1 tutor (5.6%) found the program very helpful and another responded to the challenge of demanding program responsibilities. One (5.6%) tutor's positive response was made contingent to receiving pay for after school work. Tutor reasons for continuing in the program are listed in Table 34.

Table 35 lists tutor comments about the program. When asked to make further comments about the program tutors were somewhat unresponsive. Six (33.3%) had no comment, while

Table 34

Tutor Reasons for Continuing in the Program

	Frequency	Percentage
A. Like to help people	6	33.4
B. Like to work with children	2	11.1
C. Program being very helpful	1	5.6
D. Program responsibilities demanding	1	5.6
E. Payment for after school work	1	5.6
F. No Comment	7	39.0
Total	18	100.0

Table 35

Tutor Comments About the Program

	Frequency	Percentage
A. Program was run excellently	1	5.6
B. Tutors should be selected on the basis of a careful interview	1	5.6
C. Tutors should have more time	1	5.6
D. Program is a fine means of learning	1	5.6
E. Like to teach more children and assist teachers	1	5.6
F. More money and better wages needed	7	38.9
G. No Comment	6	33.3
Total	18	100.0

7 (38.9%) commented that they should receive better wages for their work. Other comments made by 1 (5.6%) tutor each were: "the program was run excellently," "tutors should be selected on the basis of a careful interview," "tutors should have more time," "the program is a fine means of learning," and "a tutor likes to teach more children and assist teachers."

5.) Attendance Report

Attendance Record Cards obtained for twenty-three tutees show some interesting parallels. Recorded absenteeism, compared with regular students, was at a minimal level. Attendance records demonstrate strong student interest in the tutorial program. Tutees were by and large prompt for their sessions, when they were present for them.

The highest rate of absenteeism occurred during the month of February in the third quarter of the school year. Seventeen students incurred a combined absenteeism of 33 school days for that month. The second highest rate of absenteeism occurred during the fourth quarter, with 13 students accounting for a combined absenteeism of 42 school days.

As Table 36 illustrates, the tutees were fairly regular in attendance for tutorial sessions. Interviews with the program tutors revealed that most tutees were at the learning stations earlier than the appointed time waiting for their tutor to arrive. Lack of tardiness demonstrates student interest and enthusiasm for the program.

Table 36

Attendance Records of Tutees During the Third and Fourth School Year Quarters

Quarter	Days Present	Days Absent	Total Days
Third Quarter Jan 24 - Mar 26 (47 school days)	1,048	33 (17 students)	1,081
Fourth Quarter Mar 27 - June 15 (48 school days)	1,062	42 (13 students)	1,104

Even though more absent days occurred during the fourth quarter than during the third quarter, fewer students (13) were absent during the fourth quarter. The fourth quarter record did not reflect a reduction in absentee days primarily because of the extended period of sickness in the cases of a couple of students. Also, the duration of the fourth quarter was longer than the third quarter by one school day or 23 student days.

The attendance records of the last two quarters of the school year reveal high student motivation for attending tutorial sessions, as well as enthusiasm for the program in general. Significantly, 23 of the 27 original participants continued in the program until the end of the school year. This low drop-out rate reveals developing student interest in their school, and more especially, in the tutorial program.

Chapter IV

CONCLUSIONS AND RECOMMENDATIONS

The After School Tutor/Aide Program at Malcolm X Elementary School has been a successful educational endeavor of the D. C. Public Schools. It provided an opportunity for teachers, administrators, and tutors to work together as a team to design and implement learning stations and instructional modules and to conduct one-to-one instruction in reading and mathematics for a select number of fourth, fifth and sixth grade underachieving students. The program accomplished student improvement in reading and study skills, to the extent of 50% to 75% in some cases. With a few exceptions, a majority of the tutees improved in their attitudes toward school and learning in general.

In addition, the program provided an opportunity for promising junior and senior high school students to employ their multi-faceted talents and abilities to improve student deficiencies in basic learning skills, and paid tutors a small stipend. Although some students complained that the amount of pay was inadequate, stipends were an additional source of tutor motivation for their continuation in the program, and were helpful in furthering the education of tutees.

The pilot program has been successfully established in one school. However, based on evaluation findings, a few recommendations for the continued success of the program are in order.

1.) For undetermined reasons considerably more students were involved in reading tutoring than in mathematics tutoring. Overall mathematics scores for elementary school children enrolled in the D. C. Public Schools clearly indicate that mathematics remains an area of major concern for both teachers and administrators. Possibilities for the lack of program development in mathematics tutoring include insufficient tutor competence in math skill areas, and the failure of teachers to adequately identify students with substantial deficiencies in this area of the curriculum. Whatever the reason for this program short-coming, it is recommended that at least equal emphasis should be given to mathematics tutoring, if the program is continued in the coming year. That all those students enrolled in mathematics tutoring continued their participation in the program throughout the duration of the school year is especially informative as to the value such tutoring can have for interested students.

2.) In addition to standardized testing, the project maintained an effective testing program throughout the year. Internal assessments were well planned and measured student achievements on a regular basis. All such measurements, however, were aimed at the cognitive domains of the tutees. It is, therefore, recommended that specific measures should be developed and administered through appropriate curricular changes in the affective and psychomotor domains as well, to determine patterns of student growth or change in these areas.

3.) The acquisition of instructional materials continues to be a perennial problem in the D. C. Public School System, and is an especially acute problem for small, experimental programs like Malcolm X. In all too many instances, basic supplies and materials arrived too late to be used when they were most needed. The project staff often received items that were not what had been ordered by the project director. It is, therefore, recommended that teachers should learn to improvise instructional materials at a minimal cost, and that materials and supplies should be ordered by the project director in sufficient quantities to be kept in reserve for emergency situations.

4.) Learning stations were the product of concerted tutor and teacher teamwork. In many instances tutors were given a free hand to develop various aspects of the learning station resource. However, in some cases tutors were not involved to any extent in the construction and development of learning stations. The failure of tutors to participate in this aspect of the project minimized a primary objective of the project. It is, therefore, recommended that all tutors should be actively involved in building learning stations for their tutees and that teachers should simply maintain a supervisory and directional role in this area.

5.) By and large tutors instructed their assigned tutees most conscientiously. Tutors were highly motivated and the monetary aspect of the program was for the most part only of secondary importance to tutors. However, tutors were paid a salary of $2.00 an hour, which is below the minimum wage level established for the District of Columbia. Furthermore, tutors were paid for only six hours of work a week. The amount of tutor reimbursement was often even insufficient in defraying the cost of transportation to and from the school. It is, therefore, recommended that tutors should be paid a minimum salary of $2.50 an hour for no less than ten hours per week. An effort should also be made to guarantee prompt and regular payments.

6.) Although there is a waiting list of parents who desire to place their children in the tutorial program, many parents are hesitant in enrolling their children due to the problem of after-school transportation. Parents are naturally concerned about the safety and security of their young children, since there is no provision for school bus service outside of regular school hours. It is, therefore, recommended that after-school transportation be arranged for participants in the project, so that more parents will be encouraged to take advantage of the tutorial program.

7.) Very often the success of an experimental program lies in the amount of time available for pre-planning. Summer months are the best time to make the necessary preparations for the fall. It is, therefore, recommended that the selection of tutors should be completed in the summer, and that proper training and orientation should be conducted a month before the re-opening of school. Tutors will thereby be properly equipped to undertake instruction from the first day of classes. It is also highly desirable to use competent reading and mathematics consultant in addition to the director and teacher coordinator for the training of the tutors.

8.) Due to poor publicity and public relations efforts this innovative program is not well known in the immediate school community or in the school system at large. Additional support might be obtained for the program from myriad sources if greater publicity and recognition of program goals and strategies were attained. It is, therefore, recommended that the project personnel as well as the school system should find means of publicizing the contributions of this program as widely as possible to provide some indication to the general public of the real efforts that are being made within the system for the continued improvement of student education.

9.) Urban school education often limits young children to an understanding of the immediate realities of the world of the city. During the interview with teachers and tutors it was revealed that field trips can provide urban children with a new understanding and appreciation for the world outside of the city. Very few provisions were made for such meaningful field trips in the Tutor-Aide program. It is, therefore, recommended that field trips be given high priority in project activities, and that they should be well coordinated and planned to achieve maximum benefit.

10.) Teacher recommendations and their personal judgment were the primary criteria for the selection of tutees and the formation of experimental and comparison groups of students. Teacher selection was further based upon PMT and PRT test results, although only to a limited extent. These limited criteria for selection may account for some amount of improper student selection. Those students who might benefit the most from the program are not guaranteed entry into the program. It is, therefore, recommended that more objective selection criteria be developed and used to obtain a target group of students who will benefit most by participation in the tutoring program.

11.) Only six of the original twenty tutors enrolled in the program continued participation throughout the school year. The remaining tutors dropped out of the program for various reasons. Vacancies were filled by the project director with new tutors. Additional staff time and effort was required to familiarize the new tutors with program procedures. More stringent admissions standards could have avoided such high turn-over. It is, therefore, recommended that the admissions standard stipulate that the selected tutors should commit themselves for continued participation in the program for the duration of at least one school year. The maximum benefit can be derived only through a continued duration of participation in the tutoring program.

12.) Washington Highland and Assumption Schools were originally intended for participation in the program with Malcolm X, but a smaller than expected budget necessitated the curtailment of extended participation by Assumption and no participation by Washington Highland. As a matter of fact, Assumption was involved to some extent in the project for only part of the academic year. The intended cooperative endeavor could have involved a larger segment of the school population in the program, as well as assuring greater publicity for the program. More teachers and administrators might have been motivated to consider the introduction of such a program in their own schools. It is, therefore, recommended that a cooperative endeavor with other schools in the area should be planned for the Tutor-Aide program in order to involve more teachers, parents and children in the various benefits of the program.

13.) Although most of the tutors who originally enrolled in the program have since departed, two of the original tutors who started training in the summer of 1974 are still involved in the program. Their assistance in training and orienting new tutors has proved what a valuable asset experience can be. It is, therefore, recommended that the program should attempt to retain as many of the experienced tutors as possible to take advantage of the training and practical skills they have acquired through extended participation in the tutorial program.

14.) Malcolm X is an open-space school that allows the freedom and flexibility for both tutors and tutees to arrange programs that are conducive to best meeting their own learning interests. Many students especially appreciated the academic freedom of an open-space set-up that was denied them in more conventional learning environments. It is, therefore, recommended that the open-space concept be continued in the program at Malcolm X. It is further recommended that some provision be made for an alternative setting for those who cannot get accustomed to open-space.

15.) Although tutors were adolescents, they behaved as mature adults and volunteered to shoulder project responsibilities. Some tutors during their interview revealed that they were not always properly treated by teachers, who denied them the opportunity to mark student records and suggest curriculum changes, and asked them instead to "stack chairs" and "clean floors." The tutors could lose their self respect and sense of academic worth under such conditions. It is, therefore, recommended that teachers and other project staff members be especially conscientious in treating adolescent tutors with respect by giving them meaningful tasks to perform. This should further command tutee respect for tutors and contribute to the tutors' own feeling of accomplishment and ability.

Malcolm X has established a new trend in the teaching-learning process in the District of Columbia Public School System. The latent and valuable talents of high school and junior high school young adults have been successfully channelled to ministering to the needs of under-achieving elementary grade students. Although additional testing is needed to completely ascertain the degree of success the program has achieved, from all available indications, the program has kindled the interest and enthusiasm of parents and students alike. The program should not only be continued, but should be expanded to other schools as well, setting an example for other school systems throughout the country.

APPENDICES

APPENDIX A

EVALUATION OF THE TUTOR-AIDE PROGRAM AT
MALCOLM X ELEMENTARY SCHOOL

QUESTIONNAIRE FOR TUTOR-AIDE

1. Name (optional)_____

2. Name of the school you study_____Grade_____

3. How long have you been a tutor?_____Years_____Months

4. How were you selected to become a tutor?_____

_____

_____

5. Were you satisfied with the selection process? (Check one)

_____Yes _____No

6. How many children do you teach?_____Their grade levels_____

7. Please check three major reasons why you joined the program:
Use the number 1, 2 and 3 for your first, second and third choice:

_____Wanted to help others _____Interested in teaching

_____Needed the money _____My teacher persuaded me

_____Bored with the routine work _____My parents persuaded me

_____None of the above _____All of the above

_____Other (specify)_____

8. List all the learning stations that you completed this year:

_____

_____

_____

_____

9. What kind of help did your teacher give you in making the learning stations? (check all the appropriate items):

_____ In planning	_____ To collect materials
_____ In suggesting activities	_____ To arrange the space
_____ To get started with the tutees	_____ In solving major problems
_____ To orient in the use of Open Space	_____ To reorganize the learning stations
_____ All of the above	_____ Other (Specify)

10. Please rate the following by circling the appropriate number:

	Excellent	Average	Poor
a. The training given to tutors	3	2	1
b. Teacher assistance to tutors	3	2	1
c. Open Space facility	3	2	1
d. Instructional Materials developed	3	2	1
e. Lessons taught through learning stations	3	2	1
f. Internal evaluation of tutors	3	2	1
g. Schedule of activities planned for tutors	3	2	1
h. Opportunity to use own ideas	3	2	1
i. Opportunity to share problems with others	3	2	1
j. Student attitude toward school	3	2	1
k. Student attendance at the tutoring sessions	3	2	1
l. Student's ability to follow directions	3	2	1
m. Student attitude toward their tutors	3	2	1
n. Other (Specify)	3	2	1

_____

11. What are some of the major things that you like about this program?

_____

_____

_____

_____

12. Would you be interested in joining a similar program next year?

_____Yes _____No (State reasons)

_____

_____

_____

_____

_____

_____

13. Do you have any other comments or suggestions about the program?

_____

_____

_____

_____

_____

APPENDIX B

EVALUATION OF THE TUTOR-AIDE PROGRAM AT
MALCOLM X ELEMENTARY SCHOOL

QUESTIONNAIRE FOR TEACHERS

1. Name (optional)_____

2. Name of your school_____

3. Grade Teaching_____ How long?_____
Years Months

4. How long have you worked with this program? _____
Years Months

5. How were you selected to be involved in the Tutor-Aide Program?

_____

_____

6. List some of the specific tasks you performed with the tutors.

_____

_____

_____

7. Please list the major learning stations set up by tutor-aides under your direct supervision:

_____

_____

_____

_____

8. How would you rate the tutors you have worked with on the following factors? (Please circle the appropriate)

	Excellent	Good	Average	Below Aver.	Poor
a. Ability to design learning stations	5	4	3	2	1

Question No. 8 (contd...)

	Excellent	Good	Average	Below Aver.	Poor
b. Punctuality	5	4	3	2	1
c. Interest in the program	5	4	3	2	1
d. Ability to follow directions	5	4	3	2	1
e. Cooperation with others on the job	5	4	3	2	1
f. Attitude toward school	5	4	3	2	1
g. Future aspirations as talked about	5	4	3	2	1
h. Willingness to help others	5	4	3	2	1
i. Attendance	5	4	3	2	1
j. Improvement in reading	5	4	3	2	1
k. Improvement in Mathematics	5	4	3	2	1
l. Instructional material developed	5	4	3	2	1
m. Other factors (please specify)	5	4	3	2	1

_____

_____

9. How many of your student have been tutored by the Aides under this program?_____

10. What percentage of improvement have you noticed in your tutees on the average in their reading ability? (Please check one)

_____25% _____50% _____75% _____100%

11. What percent of improvement on the average have you noticed in your tutees in Mathematics? (Please check one)

_____25% _____50% _____75% _____100%

12. About what percent of improvement have you noticed in your tutees in their attitude toward school? (Check one)

_____25% _____50% _____75% _____100%

13. How accurately can the tutees follow directions that are given at the learning stations? (Check one)

_____25% _____50% _____75% _____100%

14. How far, in your opinion, did the tutees ability to complete the learning station tasks has improved? (check one of each station)

Reading	Mathematics	Special Interest
_____25%	_____25%	_____25%
_____50%	_____50%	_____50%
_____75%	_____75%	_____75%
_____100%	_____100%	_____100%

15. What are the different instructional materials that you have developed during this year? (Please list them by academic quarters/semesters)

_____

_____

_____

16. To what extent did the tutor-aide help you in developing them? (check one)

_____Great extent _____Some _____No extent

ANSWER THIS ONLY IF YOU ARE A SIXTH GRADE TEACHER OR A TEACHER AT ASSUMPTION:

17. How many underachievers did you have in the class during the school year? (place the actual number)___Math___Reading

18. How far did they progress in:

Mathematics	Reading
_____25%	_____25%
_____50%	_____50%
_____75%	_____75%
_____100%	_____100%

19. Do you have any additional comments about the program? (Use backside if required)

_____